

REMARKS

Introduction

Claims 1-44 are pending. Applicant has added claims 39-44, and amended claims 1, 9-10, 17, and 38.

Applicant wishes to thank the Examiner for the consideration and positive approach he extended during the interview conducted on October 12, 2005. During the interview, Applicant's representatives and the Examiner discussed amendments, made herein, to overcome the present rejections under §§ 101 and 103.

In the final Office Action mailed on April 19, 2005, the Examiner rejected claims 1-8, 10-15, and 17-38 under 35 U.S.C. § 101; claims 1-8, 10-15, and 17-37 under 35 U.S.C. § 103(a) over Amazon.com (a collection of prior art cited in PTO-892, Items: U-X), in view of Fast50 (a collection of prior art cited in PTO-892, Items: UU-VV); and claims 9, 16, and 38 over the above references further in view of Official Notice. For the reasons set forth in detail below, Applicant submits that the present application, including each of pending claims 1-44, is in condition for allowance.

Rejection Under 35 U.S.C. § 101

The Examiner has reiterated the arguments of the previous office action rejecting claims 1-8 and 10-15 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter, suggesting that they are directed to a process that manipulates an abstract idea. Applicant respectfully disagrees, but has amended these claims to emphasize that these steps occur in a computing system and therefore are not mere abstract ideas. As discussed below, these claims describe technology that produces a useful, concrete, and tangible result as required by case law.

To constitute statutory subject matter, an algorithm only needs to be applied in a useful way. *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373, 47 U.S.P.Q.2d 1596, 1601 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093, 119 S. Ct. 851 (1999). In *In re Alappat*, cited by the Examiner, the court found that producing a smooth waveform display was "a useful, concrete, and tangible result" that rendered the invention in that case patentable. *In re Alappat*, 33 F.3d 1526, 1544. In *Arrhythmia Research Tech. Inc. v. Corazonix Corp.*, the court found that the method claims at issue qualified as statutory subject matter by noting that the steps transformed physical, electrical signals from one form to another form – a number representing a signal related to the patient's heart activity, a non-abstract output. *Arrhythmia Research Tech. Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1060. In *AT&T Corp. v. Excel Communications Inc.*, also cited by the Examiner, the court noted in a finding of patentable subject matter, "AT&T's claimed process employs subscribers' and call recipients' PICs as data, applies Boolean algebra to those data to determine the value of the PIC indicator, and applies that value through switching and recording mechanisms to create a signal useful for billing purposes." *AT&T Corp. v. Excel Communications Inc.*, 50 U.S.P.Q.2d. 1447, 1452. The Examiner cites *Schrader* for the principle that converting one set of numbers into another set of numbers is not statutory subject matter, but in *AT&T* the court notes, "[i]n *State Street*, we held that the processing system there was patentable subject matter because the system takes data representing discrete dollar amounts through a series of mathematical calculations to determine a final share price – a useful, concrete, and tangible result." *Id.* at 1452.

Applicant's technology can be used to gather specific records from a database and display them to viewers of a web page in a way designed to increase the sales of the displayed items. Displaying the items is a useful, concrete, and tangible result. Claim 1 recites "generating a display showing, for at least a portion of the selected items, an indication of the score determined for the selected item." Claim 10 recites "generating a display incorporating at least a portion of the

attributed scores and the corresponding items." Claim 17 recites "[o]ne or more generated data signals collectively conveying a display document." Thus, all of the independent claims relevant to this rejection contain the useful step of generating a display that is viewable by a user. Applicant respectfully requests that this rejection be withdrawn.

The Examiner has rejected claims 17-37 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter, indicating that they are directed to signals that manipulate only numbers, abstract concepts, or ideas.

Data signal claims are statutory subject matter if they (1) are manufactured (i.e., not a natural phenomenon), (2) are directed to functional descriptive material, and (3) recite a practical application or cover a specific manufacture. Data signal claims are approved as statutory subject matter by training materials distributed by the USPTO. *Training Materials for the Computer-Related Invention Guidelines*, Tab 11, "Compression/Encryption Examples," Example 13. Those materials include the following example claim:

A computer data signal embodied in a carrier wave comprising:
a compression source code segment comprising [the code]; and
an encryption source code segment comprising [the code].

This example was later cited favorably in a law review article written by the Solicitor of the USPTO, Nancy J. Linck, and co-authored by the Assistant Solicitor of the USPTO, Karen A. Buchanan, who participated in the drafting of the above-referenced training materials. *Patent Protection For Computer-Related Inventions: The Past, The Present, And The Future*, Hastings Communications And Entertainment Law Journal, VI. 18, No. 4. In that article, the above example was recited as an example of a statutory article of manufacture claim because it recites a specific manufacture. The article also stated that the claim was statutory because it has a practical application in the technological arts in that "it can be used to monitor

and control the physical processes in an automated manufacturing plant." *Id.* at pp. 677-678.

Applicant's claims recite a data signal with the practical application of conveying a useful display document. Claim 17 recites "[o]ne or more data signals collectively conveying a display document, the display document comprising" This claim recites data signals that (1) do not occur naturally, (2) are directed to functional descriptive material, and (3) recite a practical application. Therefore, Applicant respectfully submits that these claims recite statutory subject matter, and respectfully requests that this rejection be withdrawn.

The Examiner has rejected claim 38 under 35 U.S.C. § 101 as being directed to nonstatutory subject matter, indicating that it recites nonfunctional descriptive material.

Data structures embodied in computer-readable media are statutory subject matter. According to M.P.E.P. § 2106(IV)(B)(1)(a):

[A] claimed computer-readable medium encoded with a *data structure* defines structural and *functional* interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. (Emphasis added.)

This section explicitly states that such an embodiment is functional. Further, the M.P.E.P defines functional descriptive material as follows, "functional descriptive material consists of data structures and computer programs which impart functionality when employed as a computer component." M.P.E.P. § 2106(IV)(B)(1). Applicant's recited data structure, when employed as a computer component, allows for the useful, concrete, and tangible results discussed in detail above.

Applicant believes the claim as submitted meets the requirements of the above-quoted sections. However, Applicant has amended claim 38 to explicitly state

that "the contents of the computer memories cause a computing system to display items increasing in consumption rank" so that the functionality of the data structure is clear. Accordingly, Applicant respectfully submits that the claimed technology is statutory subject matter and requests that this rejection be withdrawn.

Rejection Under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-8, 10-15, and 17-37 under 35 U.S.C. § 103(a) as unpatentable over Amazon.com (a collection of prior art cited in PTO-892, Items: U-X), in view of Fast50 (a collection of prior art cited in PTO-892, Items: UU-VV); and claims 9, 16, 38 as being unpatentable over the above references further in view of Official Notice (regarding computer readable medium). Applicant respectfully disagrees. While Applicant can find no motivation to combine the cited references, even if combined the references do not contain all of the limitations of Applicant's claims. Therefore, the Examiner has failed to show a prima facie case of obviousness under 35 U.S.C. § 103(a).

The cited Amazon.com articles teach displaying the top-selling items at a merchant site on a web page. The Amazon.com display indicates how well a book is selling compared to other books in a simple ranking from 1 to the total number of books available on the site. Amazon.com does not teach the desirability of placing lower-selling items prominently on a web site. Amazon.com also does not teach scoring items by their recent rate of increase in rank, rather than their current rank. There is no suggestion in Amazon.com that combining its teachings with a measurement of growth rate would be desirable to increase item sales.

Fast50 is a technology newspaper web site that provides information to those interested in the technology sector about the fastest growing companies in a particular region, presumably to educate their readers on techniques to improve or start their own business. Fast50 tracks the 50 fastest-growing technology firms in the Washington region using five years of revenue data. Fast50's scoring is based

on revenue growth of each company, and computes a long-term growth value using the five years of data. Fast50 is an informational web site, and contains no suggestion that its technology be combined with a merchant site like Amazon.com to achieve an increase in the sales of items.

In contrast, Applicant's technology may be used to increase sales of items that, while not necessarily top-selling items, have shown significant recent sales ranking growth by prominently displaying the items at a merchant site. Applicant's technology, unlike Fast50's technology, determines the rank of an item based on the number of orders placed, not based on the amount of revenue generated by that item. Fast50 does not have any concept similar to number of orders placed for the companies that it tracks. Applicant's technology then compares the increase in sales ranking from one time period to another. Fast50 does not calculate a change in rank, nor does it indicate the previous rank of a company.

Each of Applicant's claims recites determining the increase in sales rank rather than the increase in sales volume or revenue. Claims 1 and 9 recite "the score characterizing the increase in sales ranking undergone by the selected item." Claims 10 and 16 recite "a score characterizing the magnitude of increase in the consumption rank of the item." Claim 17 recites "a quantitative indication of growth in sales rank undergone by the item." Claim 38 recites "a value indicating a level of increase of the consumption rank of the item."

Additionally, some of Applicant's claims recite an additional step not contained in Fast50 which involves removing certain items from consideration in Applicant's scoring process. In some embodiments, Applicant's technology does not score items for which the rank is above a certain threshold or for which the number of orders is less than a certain threshold. This eliminates, for example, items that may have just been offered for sale, and which may therefore be rapidly changing in rank, but not significantly enough to suggest a trend that would warrant the promotion of that item to other customers. Fast50 does not contain any similar step.

Claims 1 and 9 recite "selecting items having a current rank value that is less than a rank value threshold and for which more than a threshold number of orders were placed during the current time period." Claim 39 recites "filtering the items to which a score is attributed to eliminate items with a current consumption rank higher than a threshold." Claim 40 recites "filtering the items to which a score is attributed to eliminate items for which less than a threshold number of orders were placed during a current consumption period." Claim 41 recites "wherein the portion of the plurality of items does not include items with a current consumption rank greater than a threshold." Claim 42 recites "wherein the portion of the plurality of items does not include items for which lower than a threshold number of orders were received during a current consumption period." Claim 43 recites "wherein the list of items does not include items with a rank greater than a threshold." Claim 44 recites "wherein the list of items does not include items for which less than a threshold number of orders were received during a ranking period."

Accordingly, Applicant respectfully submits that there is no suggestion to combine Amazon.com and Fast50, and even if combined the references fail to contain all of the elements of Applicant's claimed technology. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

Conclusion

In view of the above remarks, Applicant believe the pending application is in condition for allowance and requests reconsideration and a prompt notice of allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0665, under Order No. 249768043US from which the undersigned is authorized to draw.

Dated:

10/18/05

Respectfully submitted,

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